JORDAN POND RESTORATION STUDY
KICKOFF MEETING SUMMARY
OCTOBER 16, 2002

On October 16, 2002, GZA participated in a kickoff meeting for the Jordan Pond Restoration Study. The meeting was held at the Shrewsbury Town Hall. The meeting was organized by the Shrewsbury Director of Public Health, Ms. Nancy Allen. Invitations to the meeting were issued to citizens who were thought to be interested in forming a watershed / pond association for Jordan Pond. Also attending were representatives from Shrewsbury Engineering Dept. and Recreation Dept. Representative Karyn Polito and Mr. Bruce Card from the Board of Selectmen attended the meeting. Present from GZA were Peter Baril and Chad Cox.

Nancy Allen began the meeting with discussion regarding the formation of the Jordan Pond Association and the need for community involvement. GZA then made a presentation concerning the scope of the current study. The floor was then opened to comments from other meeting participants regarding history of and expectations for Jordan Pond. Below is a summary of comments made at the meeting.

1. **From Bruce Card (Board of Selectman):**

- He has walked incoming stream(s) near Ground Round (Rte 9) and Worcester Foundation – has viewed a number of piped outfalls which may be illicit discharge to stream. Pipes observed off Plainfield and Edgewater Streets. He has observed foaming discharge on water surface.
- Change in water flow characteristics to and from (?) pond occurred 20 years ago. Pond is spring feed (formerly observed near Mr. Kimball's house near pump station and outfall).
- Pond is "catch-all" for runoff from surrounding hillside and urban discharges from Route 9. Geese are well feed!!
- Sanitary sewer line went in around pond in late 1960's; this caused a raising of the outlet from Jordan Pond, which significantly reduced the normal discharge rate from the pond.
- Residents are their own worst enemy with respect to polluting the pond and not enforcing pooper-scooper ordinances.
- Mr. Card thinks that pond needs a small dam (i.e. engineered outlet structure) to improve water outflow from pond. Gradient from Pond to Lake Quinsigimond is said to be 6 vertical feet.
- Indicated that Old Mill Pond was dredged. He acknowledged that improvement to pond would cost considerable amount of money.
- Reportedly, Kings Brook at one time did flow into Jordan Pond back in the 1960's. At the time, pollution from Worcester Foundation impacted quality of pond.
- Pond is very flashy – rises quickly after rain storms, up to 1" per hour.

- There have been problems with basement flooding for homes near pond.
- Possible uses for Pond are fishing and swimming (if feasible).

2. Brad Stone – Engineering Department:

- Town is currently updating their sewer GIS mapping (i.e. pipes manholes); they still need to identify stormwater outfalls. This survey will be done this fall; they could prioritize Jordan Pond area if we so request.
- They will be investigating illilcit discharges, but will be focusing on illegal connects to the sanitary and storm sewer piped system and not point discharges directly into receiving streams.
- They haven't really started with developing stormwater management plan activities associated with NPDES – Phase II MS4 permit program. So no cross utilization of information from that effort.

2. Christine Nickle – 6 Lillian Terrace:

- Soil erosion around pond, caused mostly by dirt bikers in neighborhood. Some sewer manholes are being uncovered because of bikers and my eventually cause sewage release to pond, especially those couple of manholes between pump station and old beach area.
- Need to modify bylaws on pooper-scooper enforcement. Pet waste is a problem.
- Soil erosion at Coolidge School ball fields also due to dirt bikers (motorcycles); need to work with Police to stop biking. Multiple access to pond make enforcement difficult. Worthington, Roberts, and Oak Streets are the common access points. Heavy dirt bike use of power line Right-of-Way.
- Don't bother stocking pond with trout. This year they did not stock pond. Fishermen cause a lot of the garbage and debris found at waters edge. Due to north to south prevailing wind direction, most debris washes up at south end beach area. Also, there has been no carry-over in stocked trout – they die off each year.
- May have predator species in pond (i.e. "snake head", eels).
- Ms. Nickle has cub scout group do periodic clean up of debris.
- Public education and outreach should be a key, non-structural, part of the pond management plan.
- A lot of the land around pond is said to be public land controlled by Conservation Commission.
- Someone else in the audience suggested that the Town create a pave walkway along pond perimeter. This would be responsibility of Parks Dept.
- Wildlife seen around the pond include: Geese, Ducks, Swans, Herons, Cranes, Cormorants, Muskrats.

2. Mr. Ralph Kimball:

- Sewer work off Lakewood Drive in 1960s (when sanitary line was first constructed), encountered clay layer while digging trench. They encountered artesian conditions once they penetrated clay layer. Mr. Kimball said this was an underground river.
- Excessive sanding along Ridgeland Avenue causes additional sedimentation to pond; DPW needs more aggressive sweeping program.
- Sewer line construction in 1966-67 raised grade around rim, which effectively raised invert of outlet. Currently there is not defined outlet. Old sewer drawing provided by Nancy Allen shows a formal sluiceway outlet. Mr. Kimball corroborates this, adding that there used to be an ice-house operation at outlet – you can still see the remnants of the ice house foundation near outlet.
- Water quality did improve for a while after 1967 sewer construction.
- Outfall at Plainfield Avenue creates sand delta that DPW periodically removes.
- Mr. Kimball has an old map that indicates that Pond used to be up to 14 feet deep. Water quality used to be sufficient to see the bottom of the pond in many areas.
- This year (2002) was the worst algae bloom the residents could remember, but algae blooms seem to occur every year and have done so for many years.

2. Other Comments: Comments from other residents and stakeholders were received and recorded. Most seemed to be in general agreement and support of the comments recorded above.

3. Swimming Issue: Group was in agreement that trying to make Pond swimmable again is not a priority. Evidently, water quality problems go back 30 years (i.e. Jordan Pond rash). If swimming is feasible then it would be a welcome use, but Town and residents are willing to accept a permanent ban on swimming.

4. "Indian Wall" – Mr. Card believes that this is a remnant of an old stone farming wall. Our bathymetry should be able to pick it out. Some guidance was given regarding its approximate location.

JORDAN POND RESTORATION STUDY

Shrewsbury, Massachusetts

Project Kick-Off Meeting
October 16, 2002

Project Funding: Commonwealth of Massachusetts
Representative Karyn Polito

Project Management: Town of Shrewsbury
Selectman Bruce Card

Board of Health
Nancy Allen – Director of Public Health
(508) 841-8512

Project Engineer: GZA GeoEnvironmental, Inc.
One Edgewater Drive
Norwood, MA 02062

Chad Cox
(781) 278-5787

Jordan Pond Watershed Association

Meeting Agenda:

1) Introductions
2) Scope of Study
3) Presentation of Initial Data
4) Discussion of History and Observations of the Pond
5) Discussion of Stakeholder Expectations and Priorities

Scope of Study

1a) Review Existing Information
1b) Biological Survey
2) Baythemetric Survey
3) Water Quality Sampling
4) Assessment of Nutrient & Bacteria Loading
5) Analytical Testing of Sediment
6) Waterfowl Prevention Recommendations
7) Recommendations to Increase Outflow
8) Overall Management Plan Development & Recommendations
9) Preferred Alternative Feasibility Study

Preliminary Sampling Results and Observations

- Pond has nearly 100 percent cover of aquatic plant known as Waterweed (*Elodea*)
- Preliminary results indicate that nutrient concentrations in the Pond (particularly phosphorus) are high.
- Clarity of Pond water is relatively poor (Secci disc depth less than 3 feet)
- Bacteriological quality of water does not meet Minimum Standards for Bathing Beaches. Enterococci levels exceed 61 colonies per 100 ml.
- Several possible vectors observed for nutrient and bacteria transport.

History of Pond and Resident Observations – To be provided by Association

Stakeholder Expectations and Priorities – To be discussed with Association

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